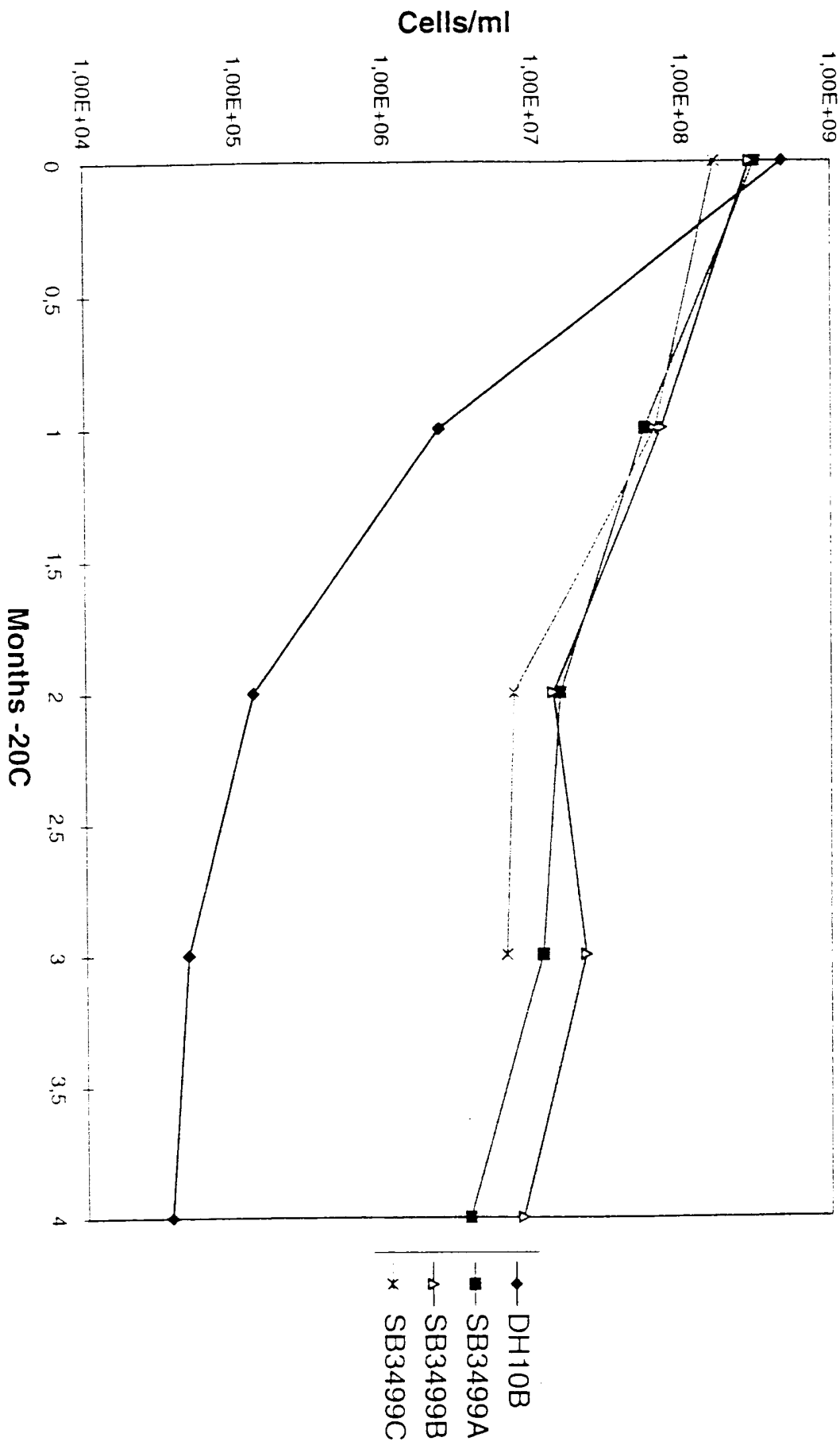
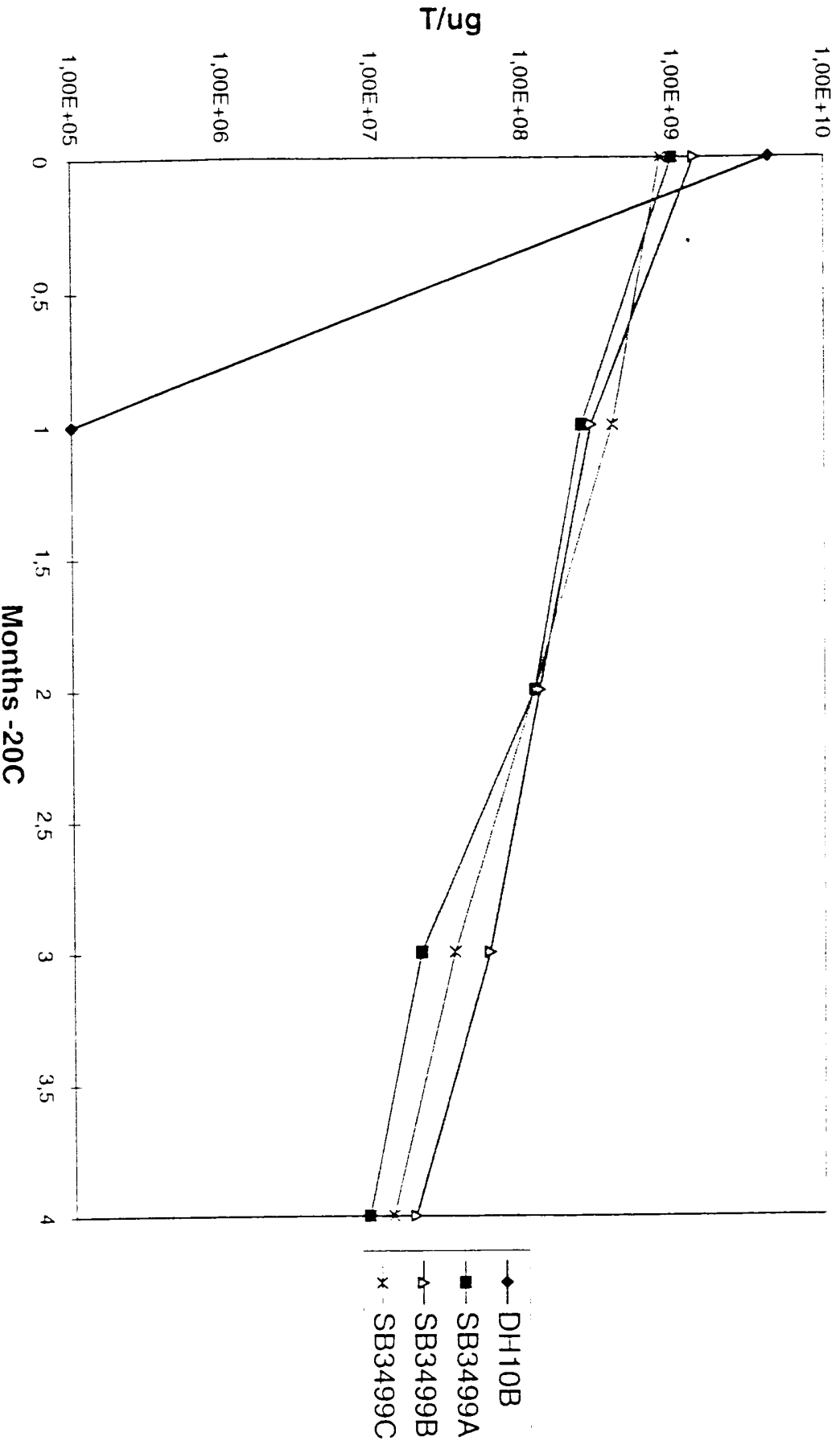


Cell Viability Stability -20C



Transformation Efficiency Stability -20C



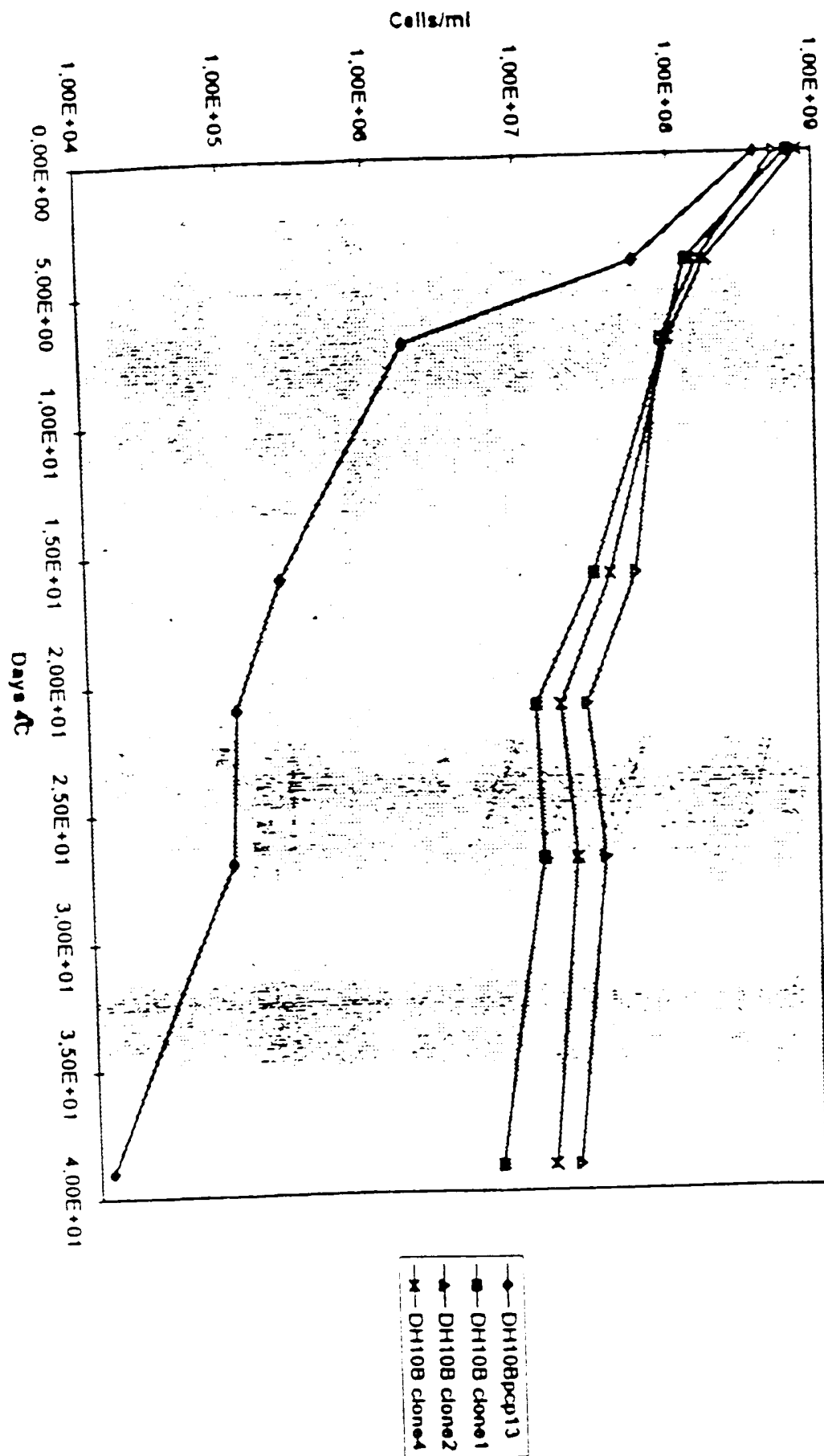


FIGURE 3

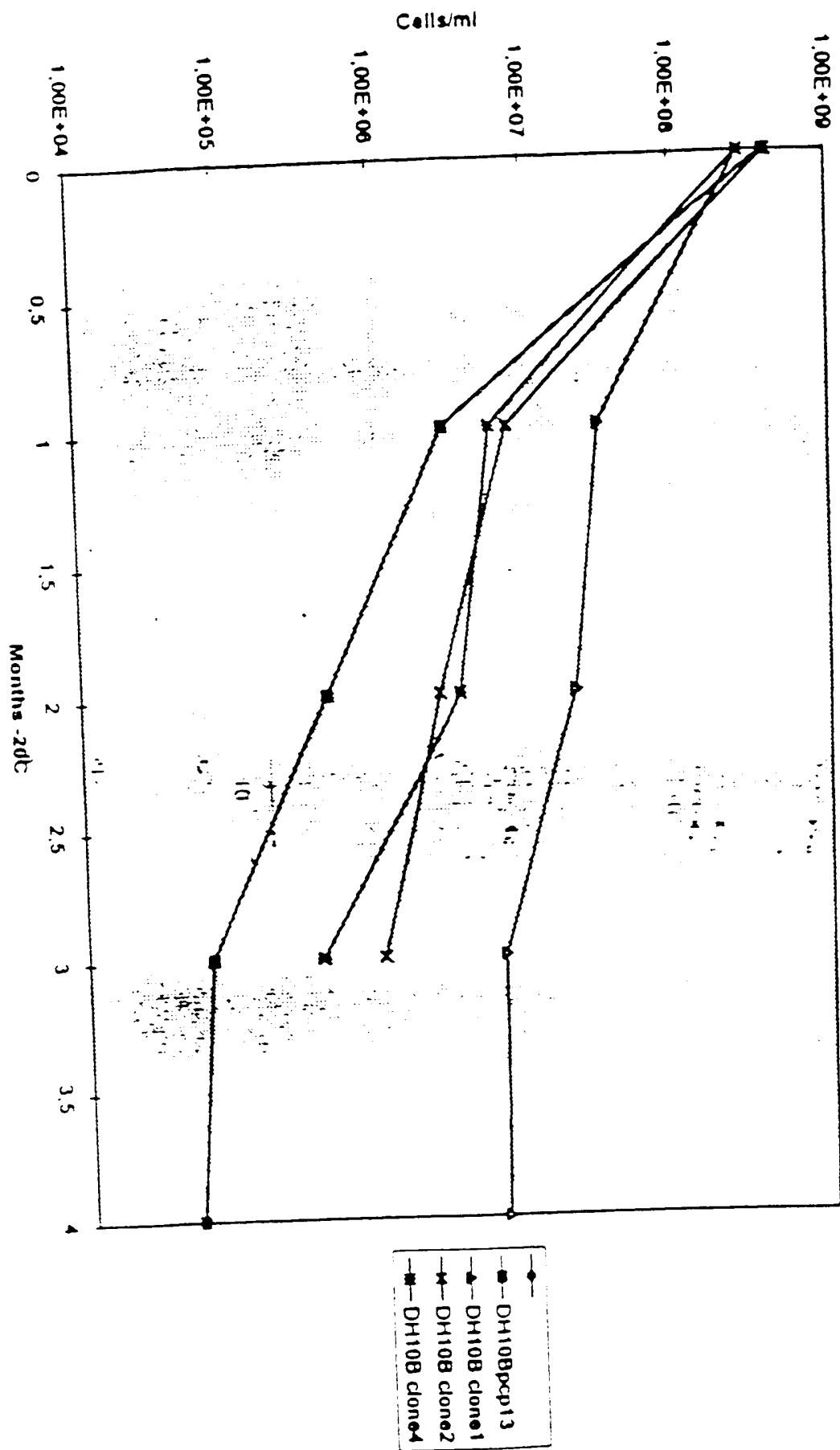


FIGURE 4 A

Chart1

Cell Viability
Stability 4C

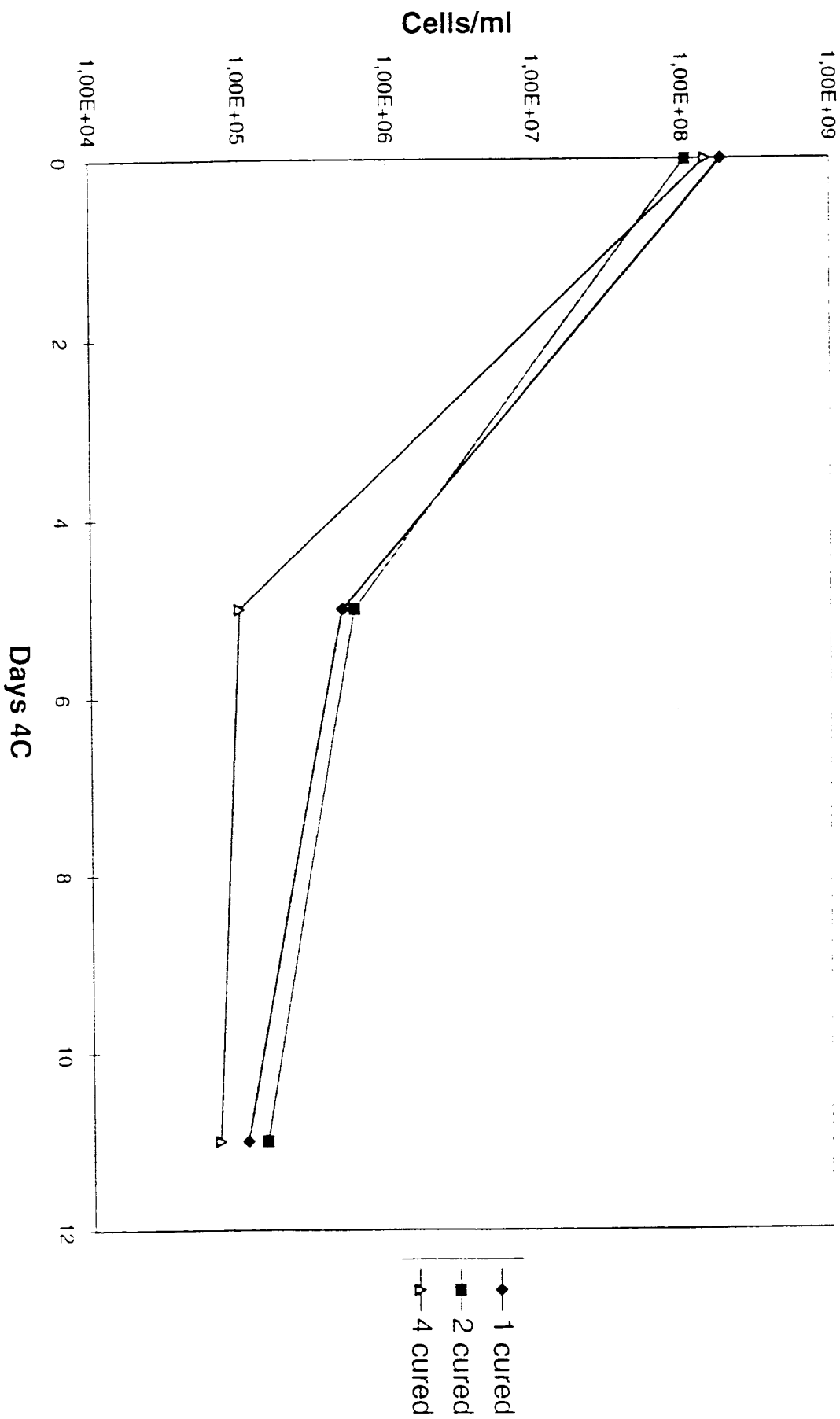
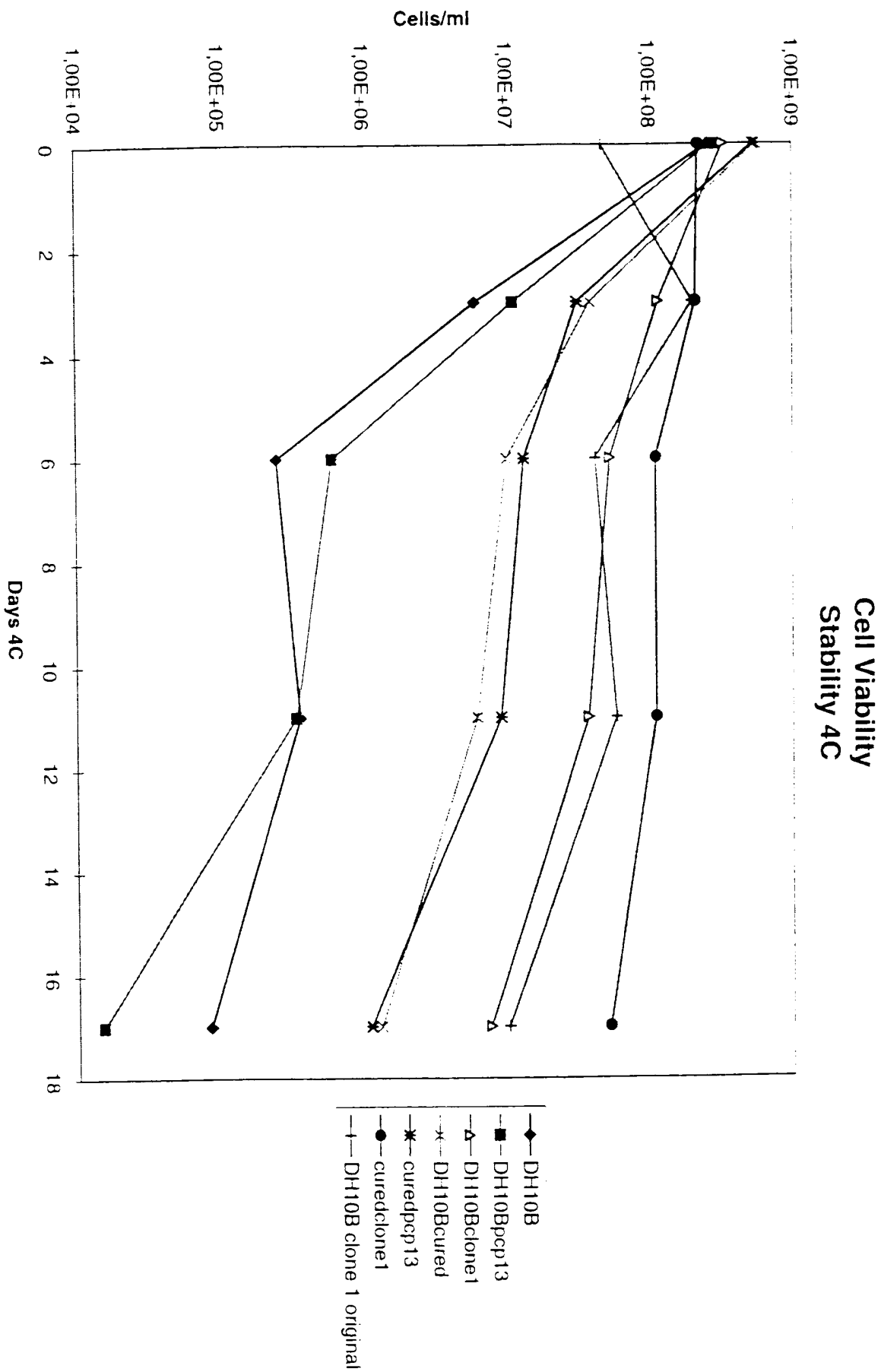


Chart1



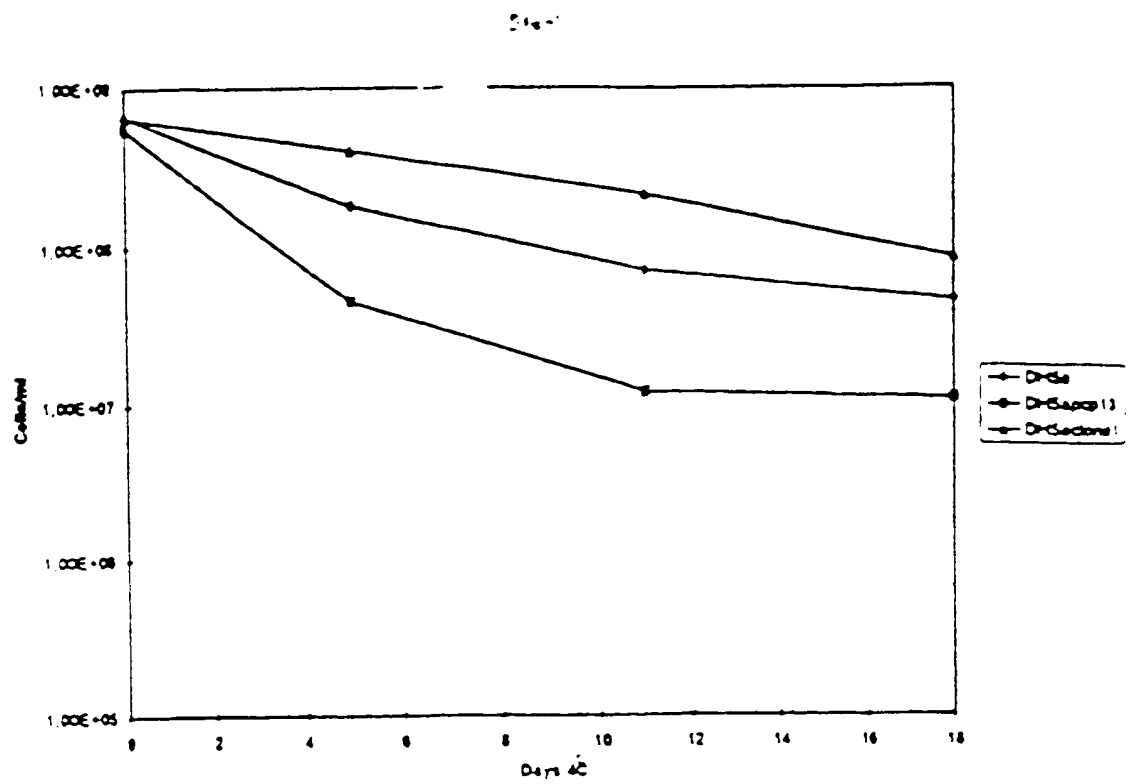


FIGURE 6A

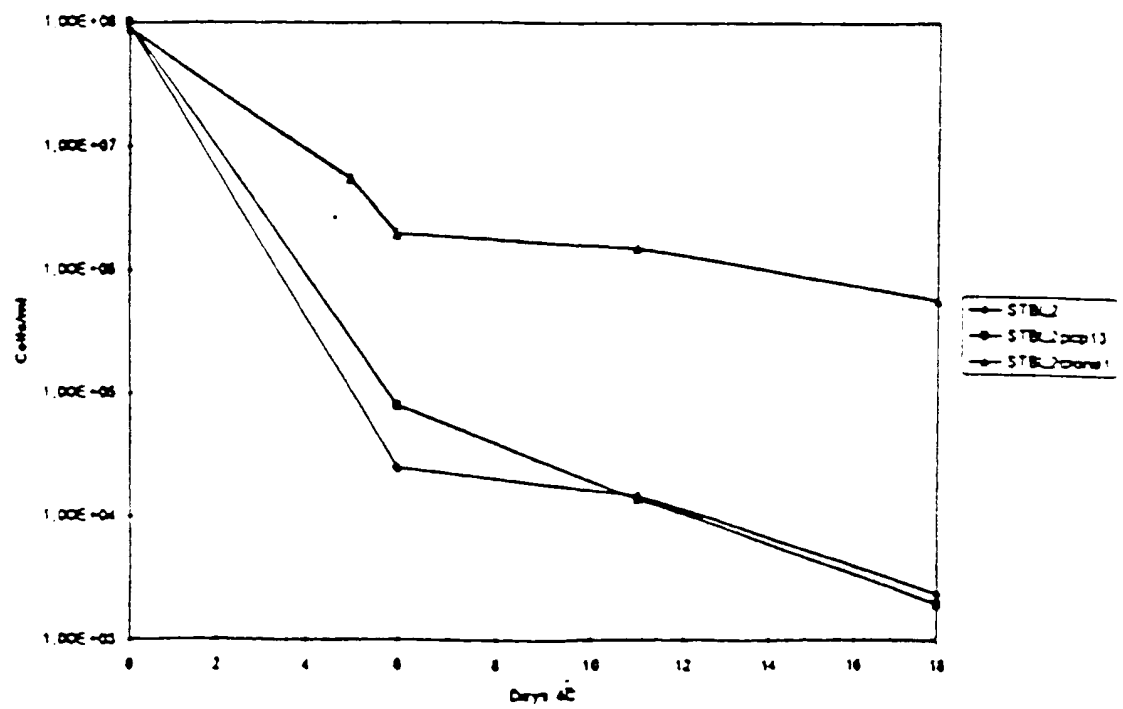


FIGURE 6B

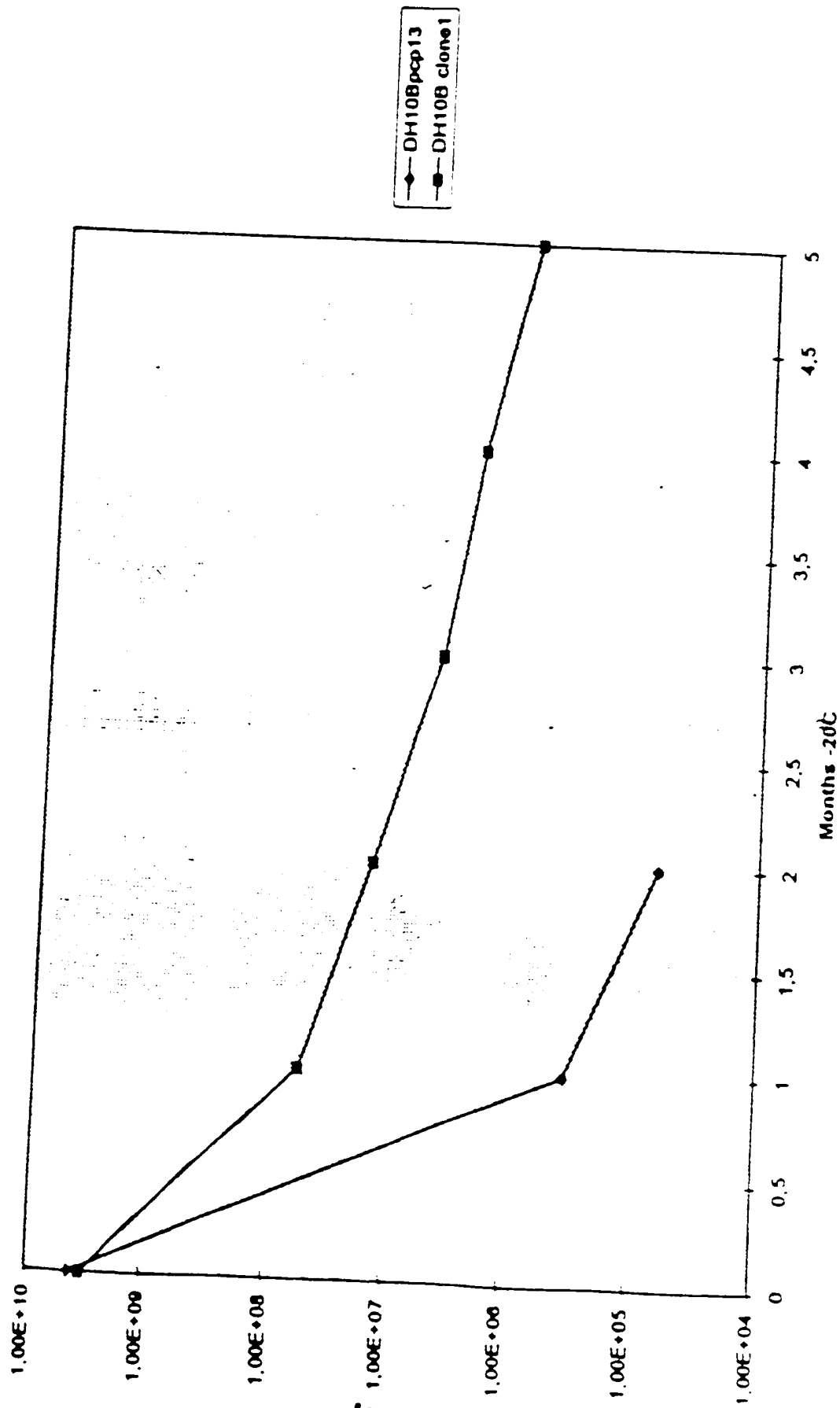


FIGURE 7

Cell Viability Stability 4C

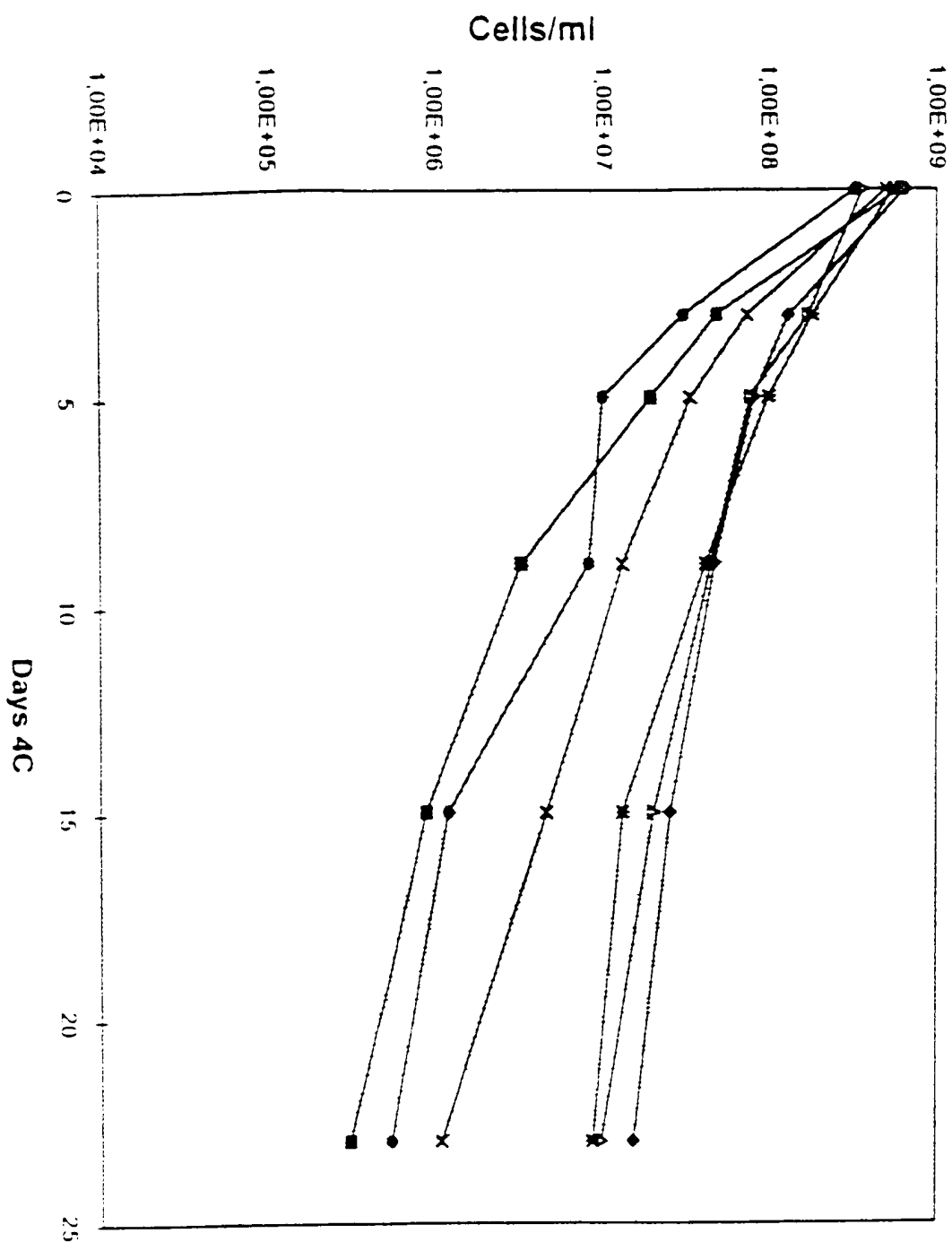


FIGURE 8

Cell Viability Stability -20C

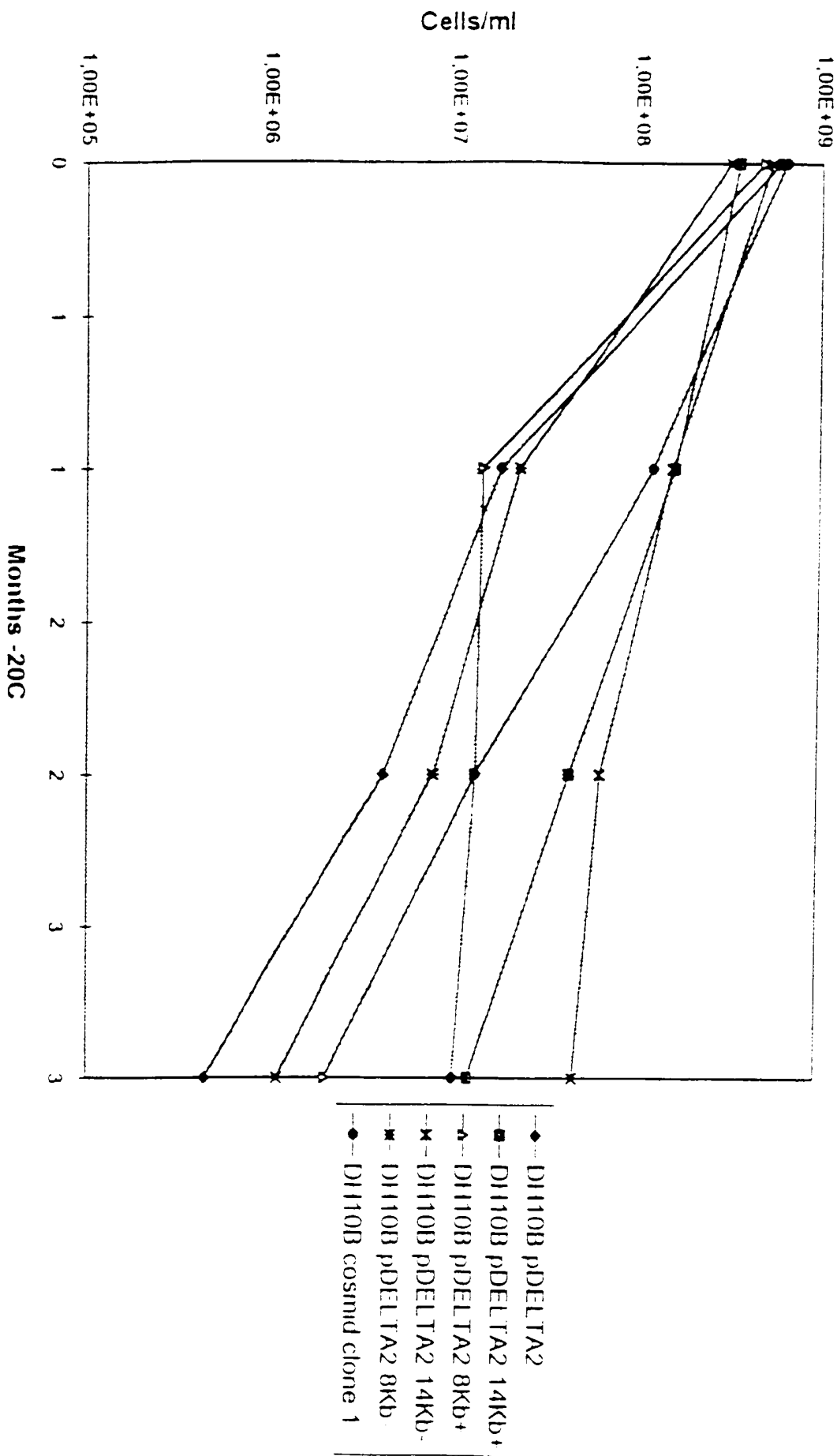


FIGURE 9

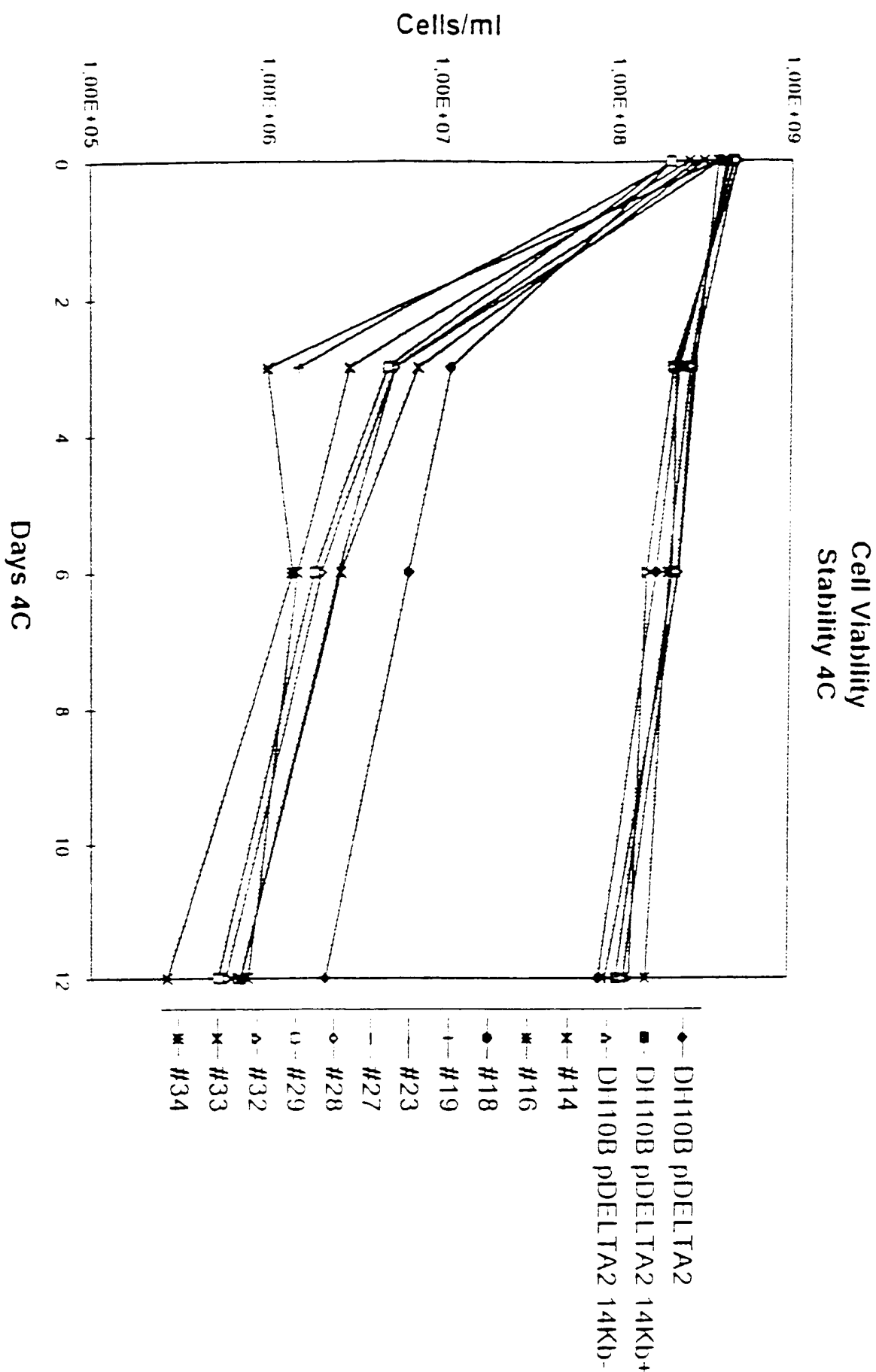


FIGURE 10

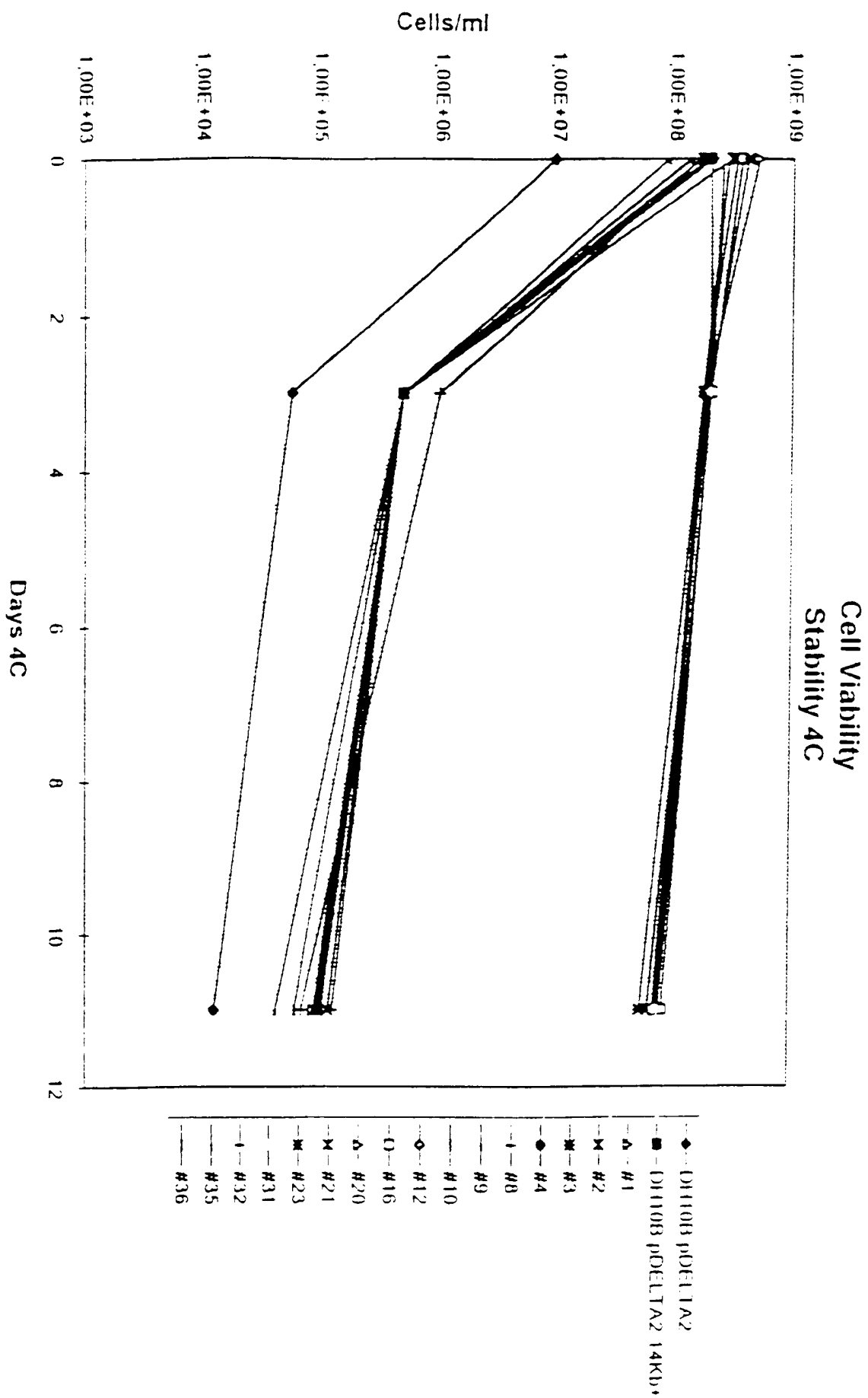
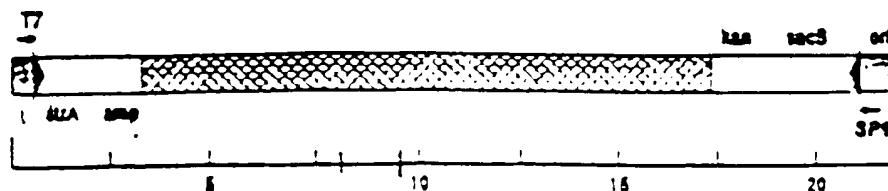


FIGURE 11

Clone

DNA Size(kb)

Clone 1



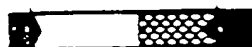
22.0

19 -



5.8

34 -



6.2

29 -



7.0

14 -



8.2

33 -



8.3

28 -



8.4

32 +



10.4

27 +



10.5

18 +



14.0

16 +



15.0

3 +



16.0

10 +



15.5

32 -/16 +



14.0

4 -



12.0

1 -



11.2

9 -



10.8

35 -



10.7

2 -



10.0

36 -



9.3

21 -



8.0

FIGURE 11

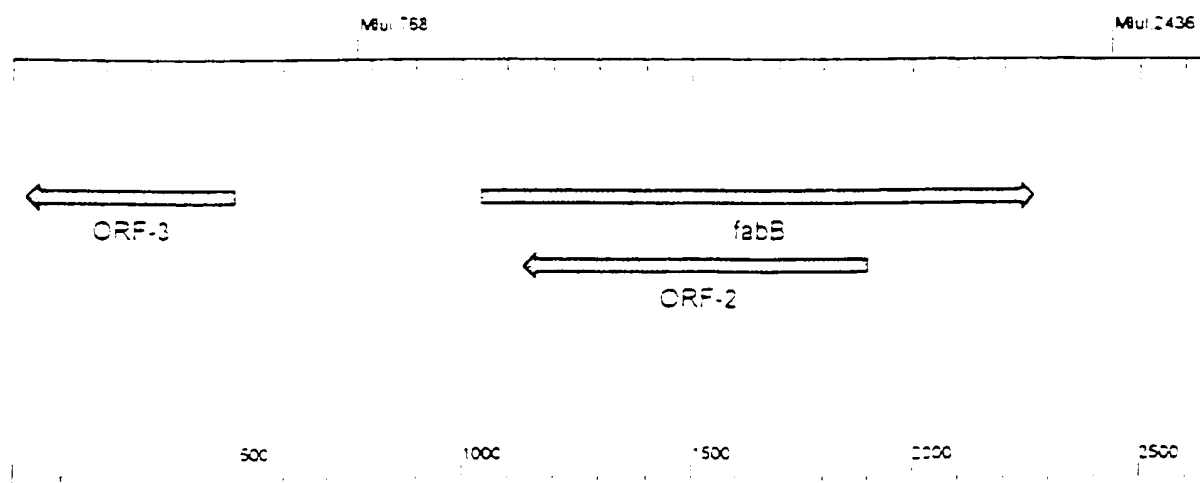
Fig. 13 Sequence of essential region of cosmid clone 1

CGTAGNTTTCGTTNCATTGGCCCTCAAACCCCTAATAGCGCCAGCGACAA⁵⁰
CAACGCGCTGGCAATACCACCGCCGATAATCGCCGCTTCCCGTTTGCTGC¹⁰⁰
TGCCCGTGCGGTTAAACCACGGCGCGGAGCAGGGGAGCGGTAAATGTCTGT¹⁵⁰
TCCATCACCCCGCAAAGCATTTCGCGTTTGGCGCCAAAGCCCTTACGTTT²⁰⁰
TTGCATCGTGAATCCGGCGTCTTGCAAACCGCGGCGGACAAAACCGGCAG²⁵⁰
ACGTAAATGTGCGCCAGCGTGCCGCCCCGACGCGCCAACCTTGCCATGGCG³⁰⁰
TTAAACAGATTTTGGCTCCACATATCCGGGTTTTTCGCTGGCGCAAAGCC³⁵⁰
GTCCAGAAACCAGGCATCTACTTTTTGATTTAGCGAATCGTCCAGTTGGC⁴⁰⁰
TGGTCAGTTCTGTTAATATCGCCAAACCATAAATCCAGCGTCACGCGGCCT⁴⁵⁰
TCATCGAGCAATAAACGATGGCAAACCGGGCAAGGGCAATTGGCCACTGCGC⁵⁰⁰
CTGAAGTTGTTCTGCCCCACGGAGCCAGTTCCGGCCAGTGTTGATGCGCTA⁵⁵⁰
AGGCTAAATCCGCACGGGTGAGGGGAAATTTCTCAAACTAATGAAATGT⁶⁰⁰
AAGCGTTGTAATTGCGCTTGCGGATGCGCTTCGCGAAACTGATCAAATGC⁶⁵⁰
CTGCCATAGCGTCAGGAAGTTTAAATCCGGTGCCGAAGCCGCTCTCTGCTA⁷⁰⁰
CCACAAACAGAGGATGTGGATGCTCAGGAAGCGTACCTCTAATTGGTTG⁷⁵⁰
CCTCCCAGAAAAACATAACCGCTCTCTTCCAGCCCGTTATCGTTGGAAAA⁸⁰⁰
ATAGACATCGTCAAAATCTCGGGAAACAGGTGTACCCTCAGCATTAAATT⁸⁵⁰
CGAGGTTGGCAGGTTGTATGGAGTAGTGTTTCACGTAAGTTACTCGTCTT⁹⁰⁰
ACAGGCGGTGGCTCGATCTTAGCGATGTGTGTAAAGGCTGCGCAAATTTCT⁹⁵⁰
CTATTAAATGGCTGATCGGACTTGTTCCGGCTACAAGTGTACGCTATTGT¹⁰⁰⁰
GCATTCGAAACTTACTCTATGTGCGACTTACAGAGGTATTGAATGAAACG¹⁰⁵⁰
TGCAGTGATTACTGGCCTGGGCATTGTTCCACCATCGGTAAATAACCAGC¹¹⁰⁰
AGGAAGTCCTGGCATCTCTGCGTGAAGGACGTTACAGGGATCACTTTCTCT¹¹⁵⁰
CAGGAGCTGAAGGATCCGGCATGCGTAGCCACGTCTGGGGCAACGTAAA¹²⁰⁰
ACTGGATACCACTGGCCTCATTGACCGCAAAGTTGTGCGCTTTATGAGCG¹²⁵⁰

ACGCATCCATTTATGCATTCTTTCTATGGAGCAGGCAATCGCTGATGCG¹³⁰⁰
GGCCTCTCTCCGGAAGCTTACCAGAATAACCCGCGCGTTGGCCTGATTGC¹³⁵⁰
AGGTTCCGGCGGCGGCTCCCCGCGTTTCCAGGTGTTCCGGCGCTGACGCAA¹⁴⁰⁰
TGGCGGGCCCCGCGCGGCCTGAAAGCGGTGGCCCGTATGTGGTCACCAAA¹⁴⁵⁰
GCGATGGCATCCGGCGTTTCTGCCTGCCTCGCCACCCCGTTTAAAATTCA¹⁵⁰⁰
TGGCGTTAACTACTCCATCAGCTCCGCGTGTGCGACTTCCGCACACTGTA¹⁵⁵⁰
TCGGTAACGCAGTAGAGCAGATCCAACCTGGGCAAACAGGACATCGTGTTT¹⁶⁰⁰
GCTCGCGGGCGGCGAAGAGCTGTGCTGGGAAATGGCTTGCGAATTCGACGC¹⁶⁵⁰
AATCGGTGCGCTGTCTACTAAATACAACGACACCCCGGAAAAAGCCTCCC¹⁷⁰⁰
GTACTTACGACGCTCACCGTGACGGTTTCGTTATCGCTGGCGGCGGCGGT¹⁷⁵⁰
ATGGTAGTGGTTGAAGAGCTGGAACACGCGCTGGCGCGTGGTGCTCACAT¹⁸⁰⁰
CTATGCTGAAATCGTTGGCTACGGCGCAACCTCTGATGGTGCAGACATGG¹⁸⁵⁰
TTGCTCCGTCTGGCGAAGGCGCAGTACGCTGCATGAAGATGGCGATGCAT¹⁹⁰⁰
GGCGTTGATACCCCAATCGATTACCTGAACTCCCACGGTACTTCGACTCC¹⁹⁵⁰
GGTTGGCGACGTGAAAGAGCTGGCAGCTATCCGTGAAGTGTTCCGCCGATA²⁰⁰⁰
AGAGCCCGGCGATTTCTGCAACCAAAGCCATGACCGGTCACTCTCTGGGC²⁰⁵⁰
GCTGCTGGCGTACAGGAAGCTATCTACTCTCTGCTGATGCTGGAACACGG²¹⁰⁰
CTTTATCGCCCCGAGCATCAACATTGAAGAGCTGGACGAGCAGGCTGCCG²¹⁵⁰
GTCTGAACATCGTGACCGAAACGACCGATCGCGAACTGACCACCGTTATG²²⁰⁰
TCTAACAGCTTCGGCTTCGGCGGCACCAACGCCACGCTGGTAATGCGCAA²²⁵⁰
GCTGAAAGATTAAATTCGCAGTAGCTCGGAGTAGACGGCCAGCCTCGCAT²³⁰⁰
CCGACGTTACCGGCCAATGCGGCCTCCGGCACTAACGCAAAAGGGAACCT²³⁵⁰
GATGGTTCCCTTTTTCACATCATTGACAATCGCCGCCAGTTCCAGGCAAA²⁴⁰⁰
CTTCCCGCTTGTGATTTCTTCTGAAAAGACGTACGCGTTAAATCCTG²⁴⁵⁰
CCAACGCACCGTAACCCCTGAAACCAGAGACATGAGACGGGGATACTCCTC²⁵⁰⁰
GCCTTGGGCTGCAATCTGGAGTAATGCATGACTGCTGTAAGCCAAACCGA²⁵⁵⁰
AACACGATCTTTCTGCCAAATTTTCCCTTTTCCGCATCGCTTTTGGCG²⁶⁰⁰

TTTTTCTTCACCTACATGACCCGTAGGGTTGCCGTTGCCGGTTATCCCCG¹⁴⁵⁰

TGTTTGT¹⁴⁵⁴



090396FA.SEQ (2658 bps)

FIGURE 14

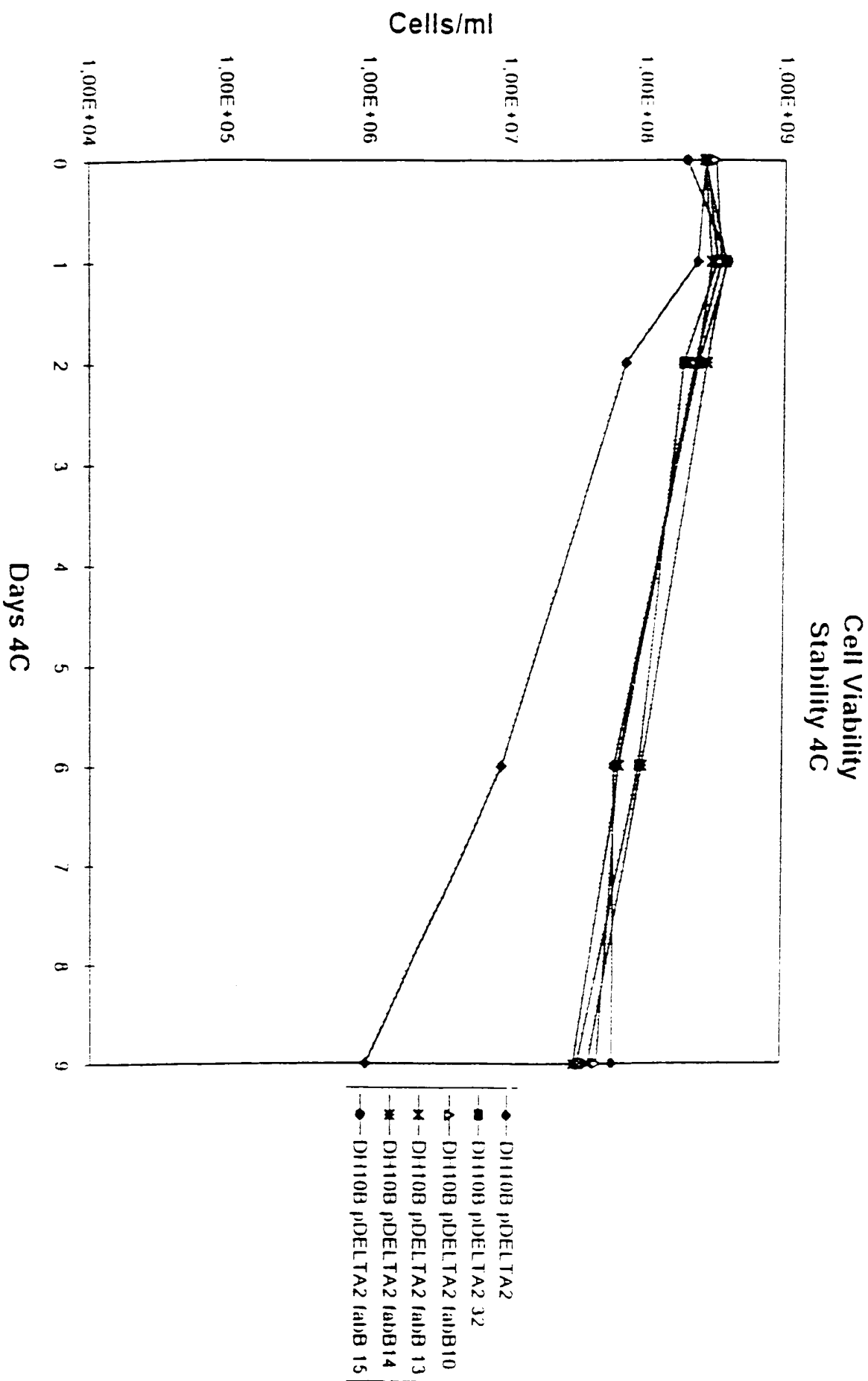


FIGURE 15

Cell Viability Stability -20C

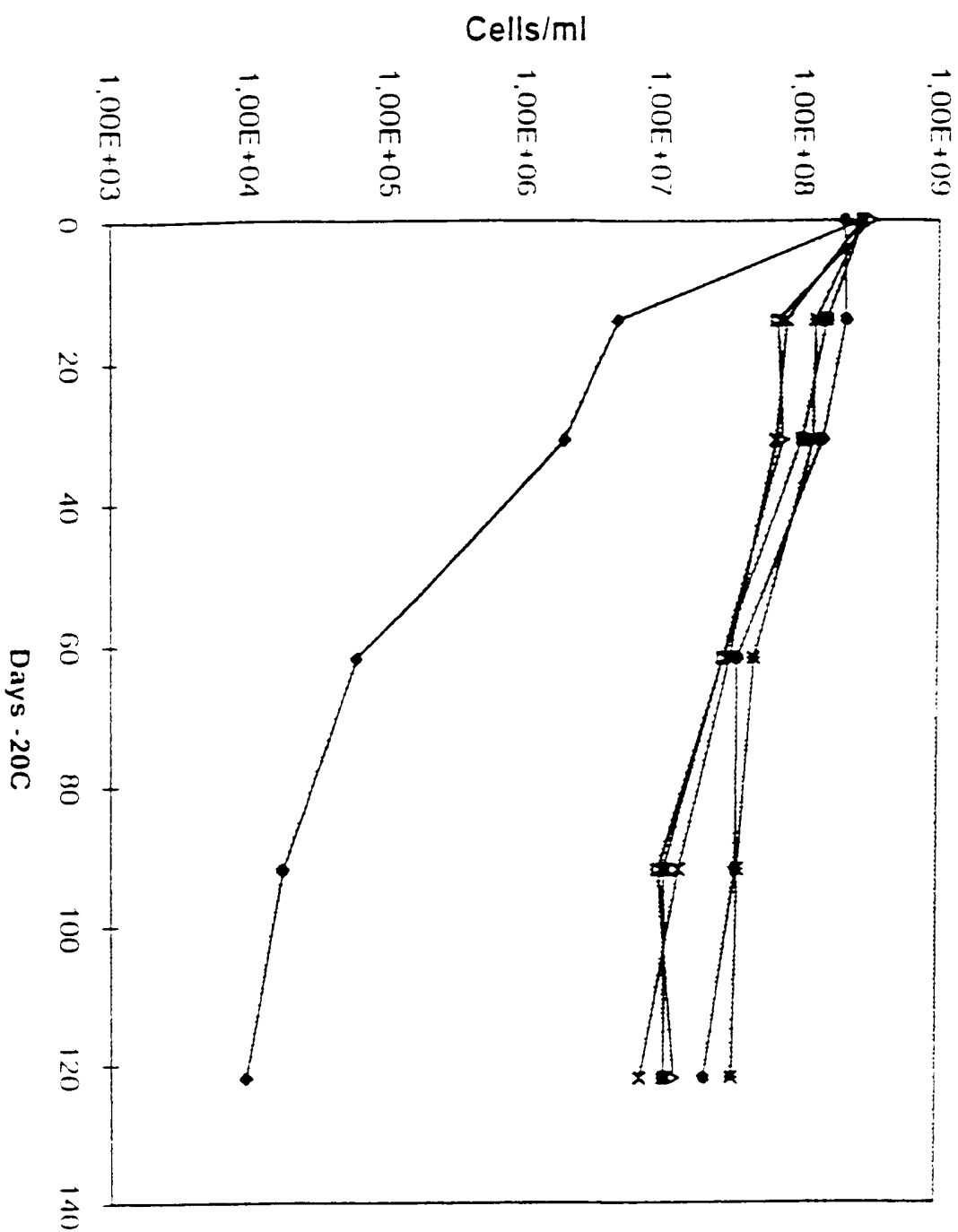


FIGURE 16

Cell Viability Stability 4C

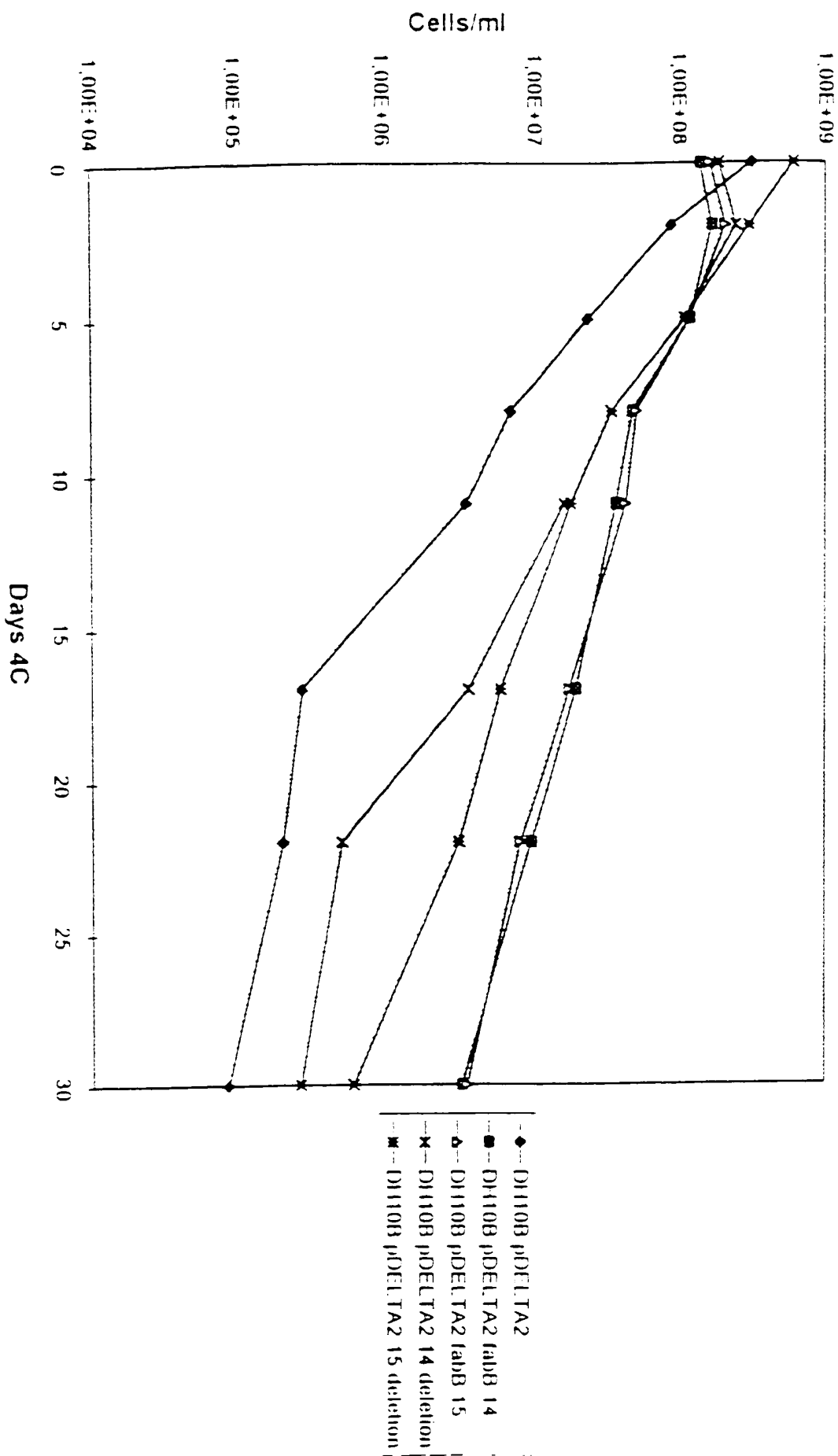


FIGURE 17

Cell Viability Stability -20C

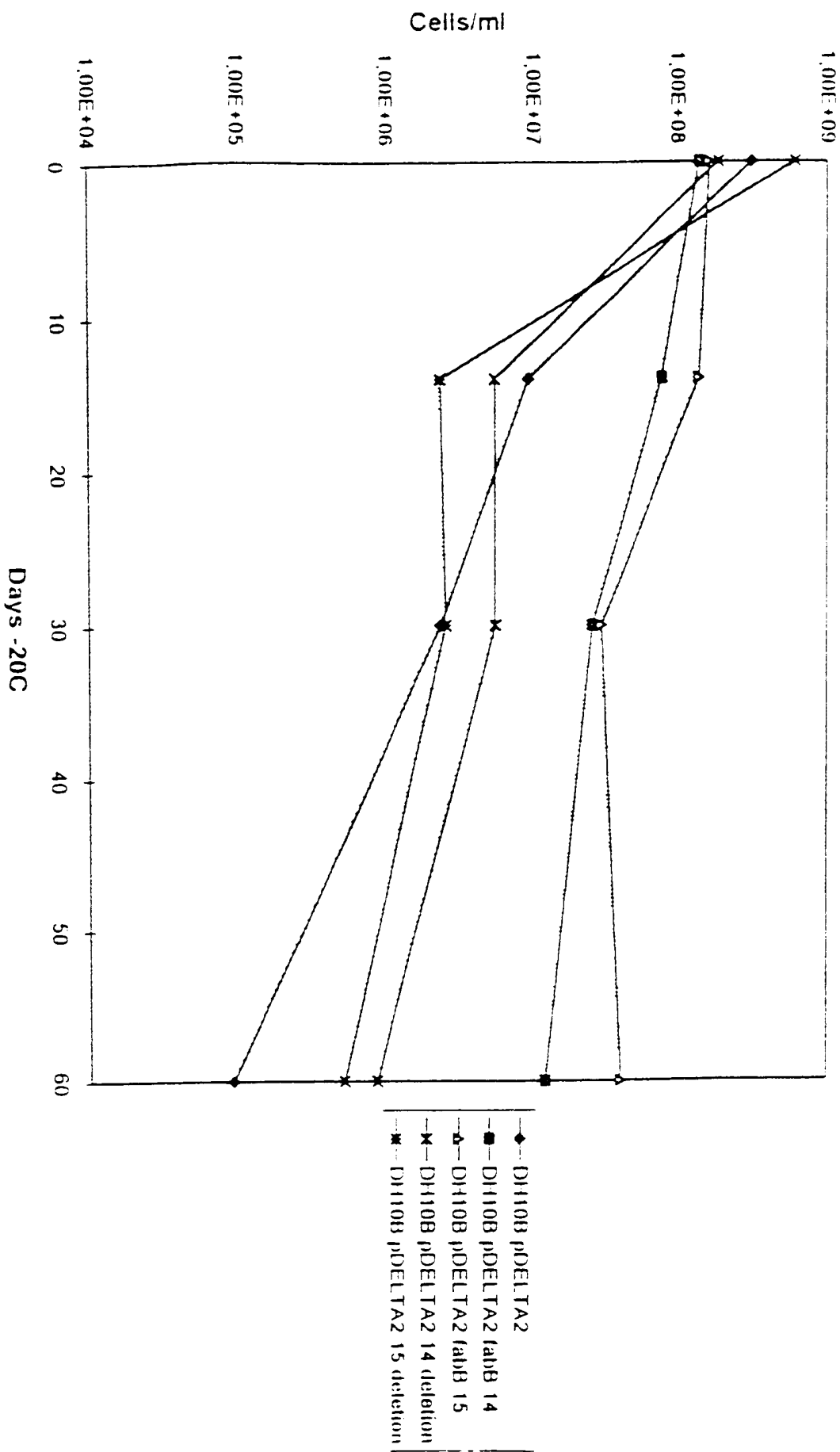
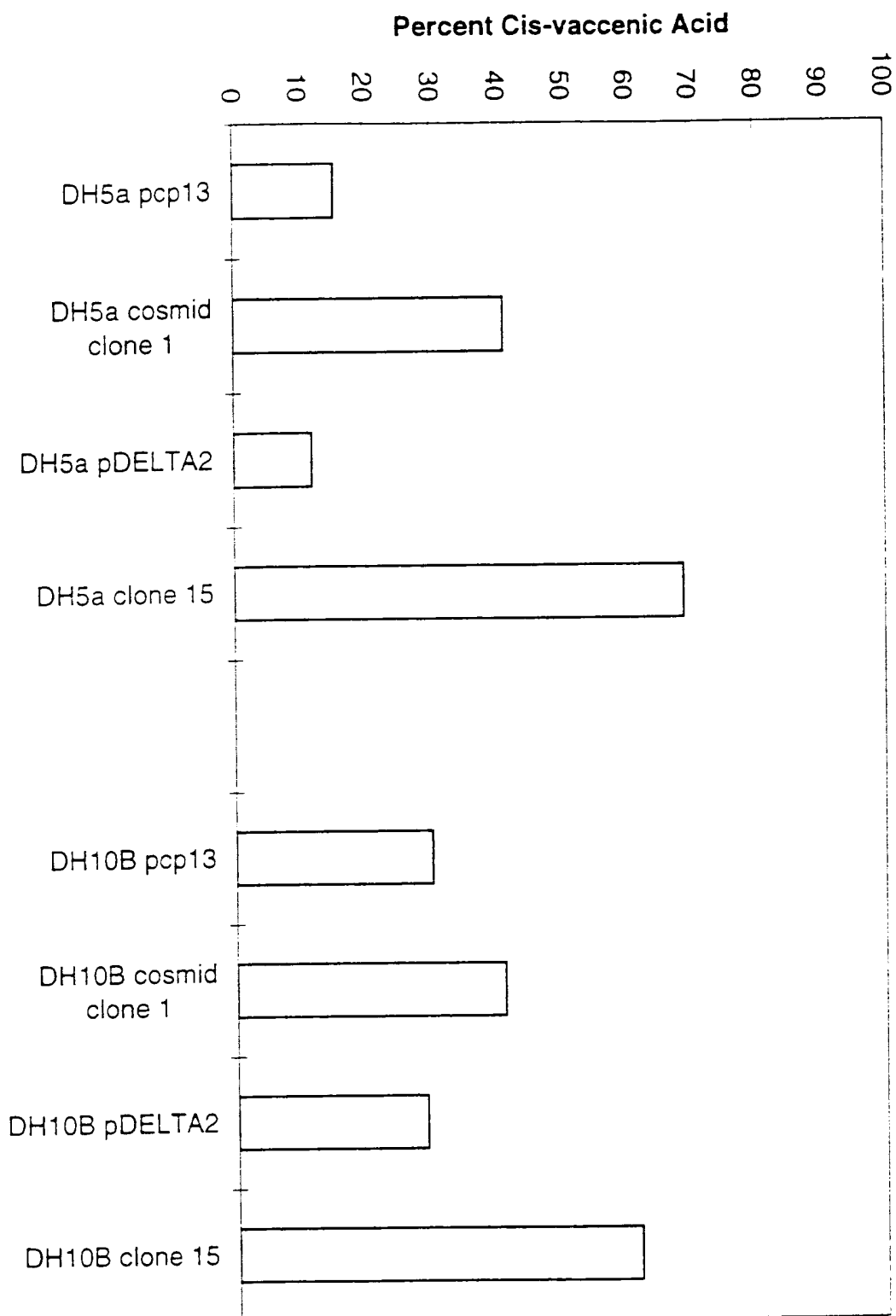


FIGURE 1A

**Percent Cis Vaccenic Acid
Effect of fabB Clones**



Percent Unsaturated Fatty Acids
Effect of FabB Clones

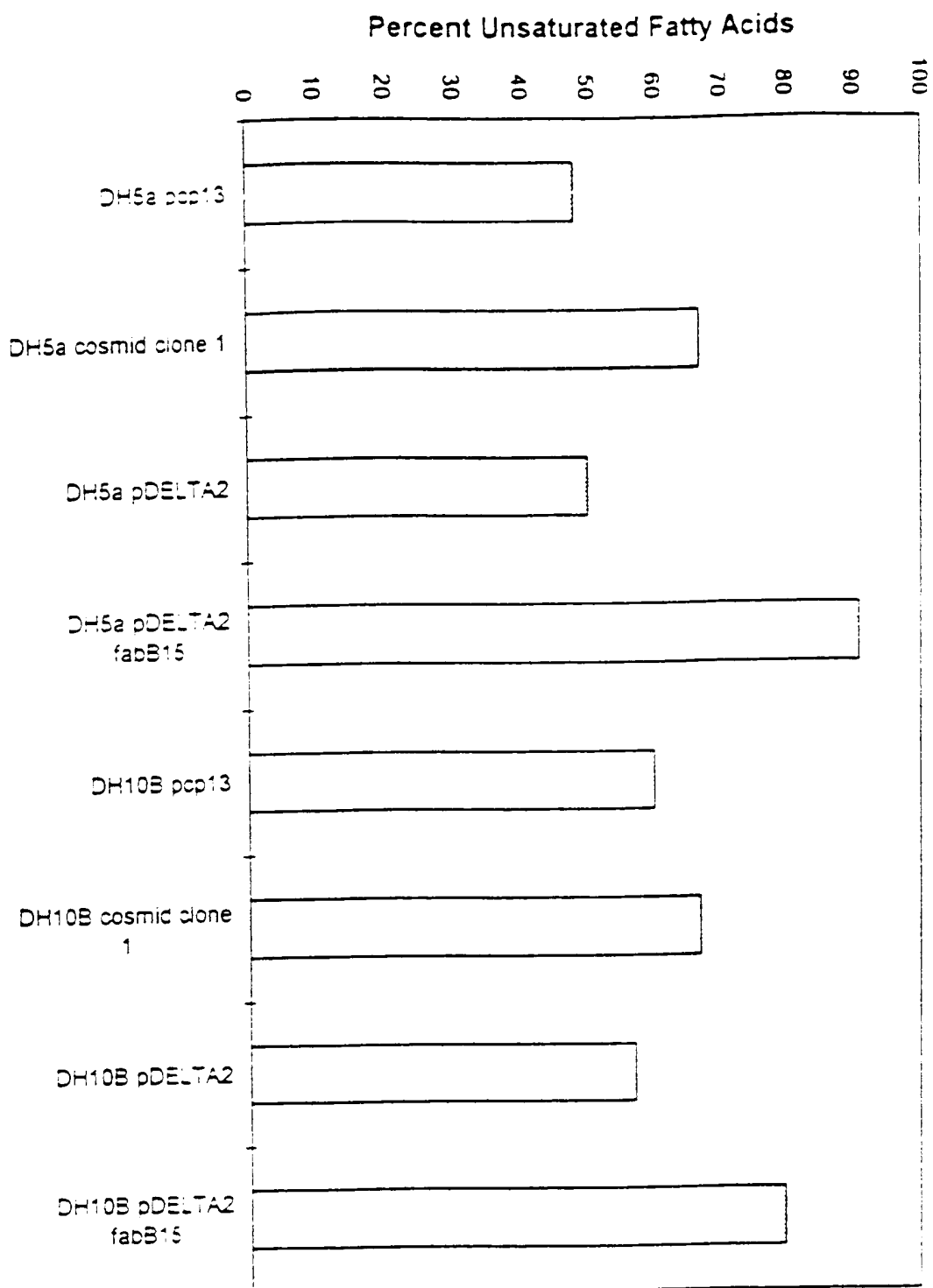


FIGURE 20

Cell Viability Stability -20C

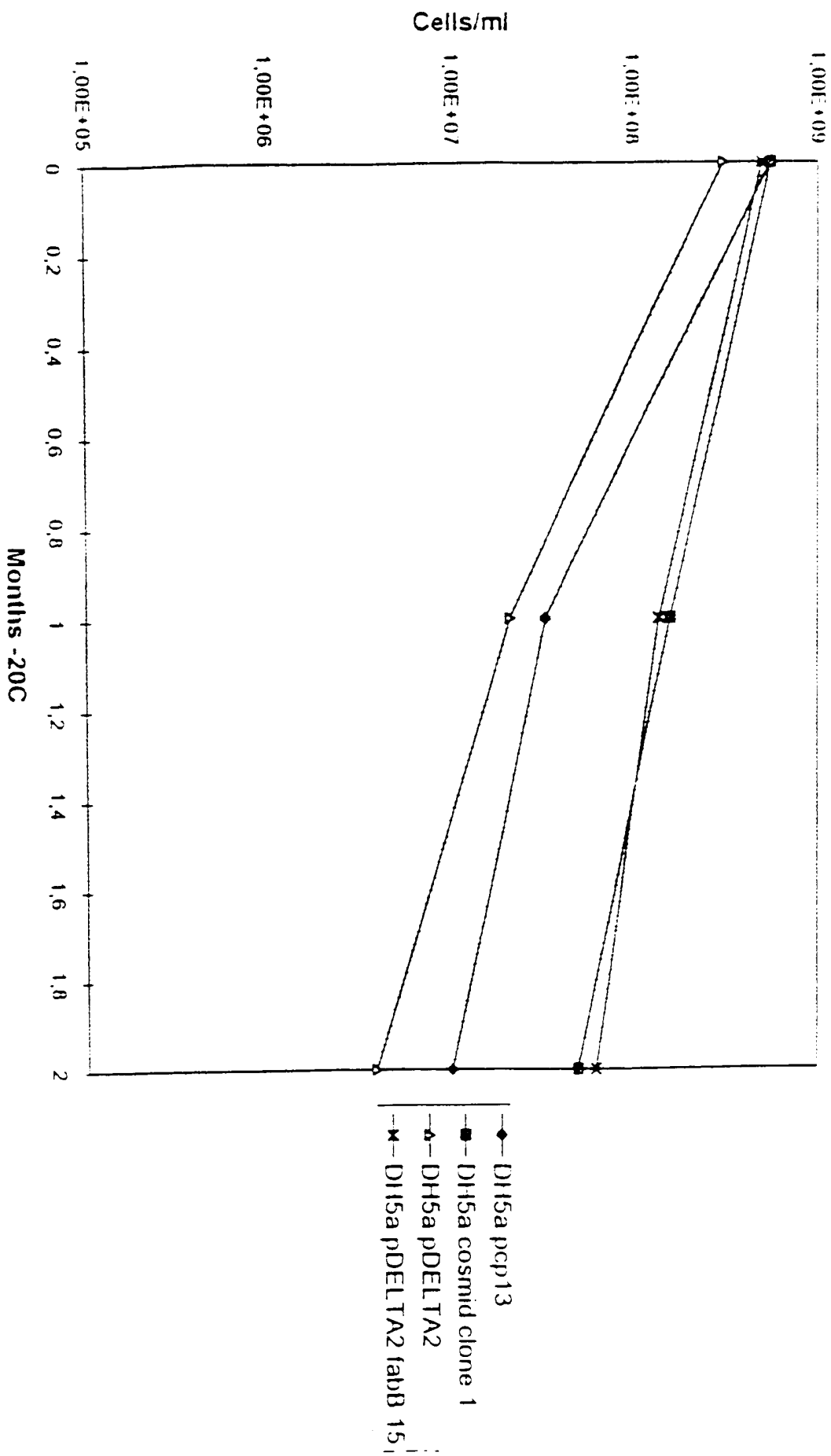


FIGURE 21

Cell Viability Stability -20C

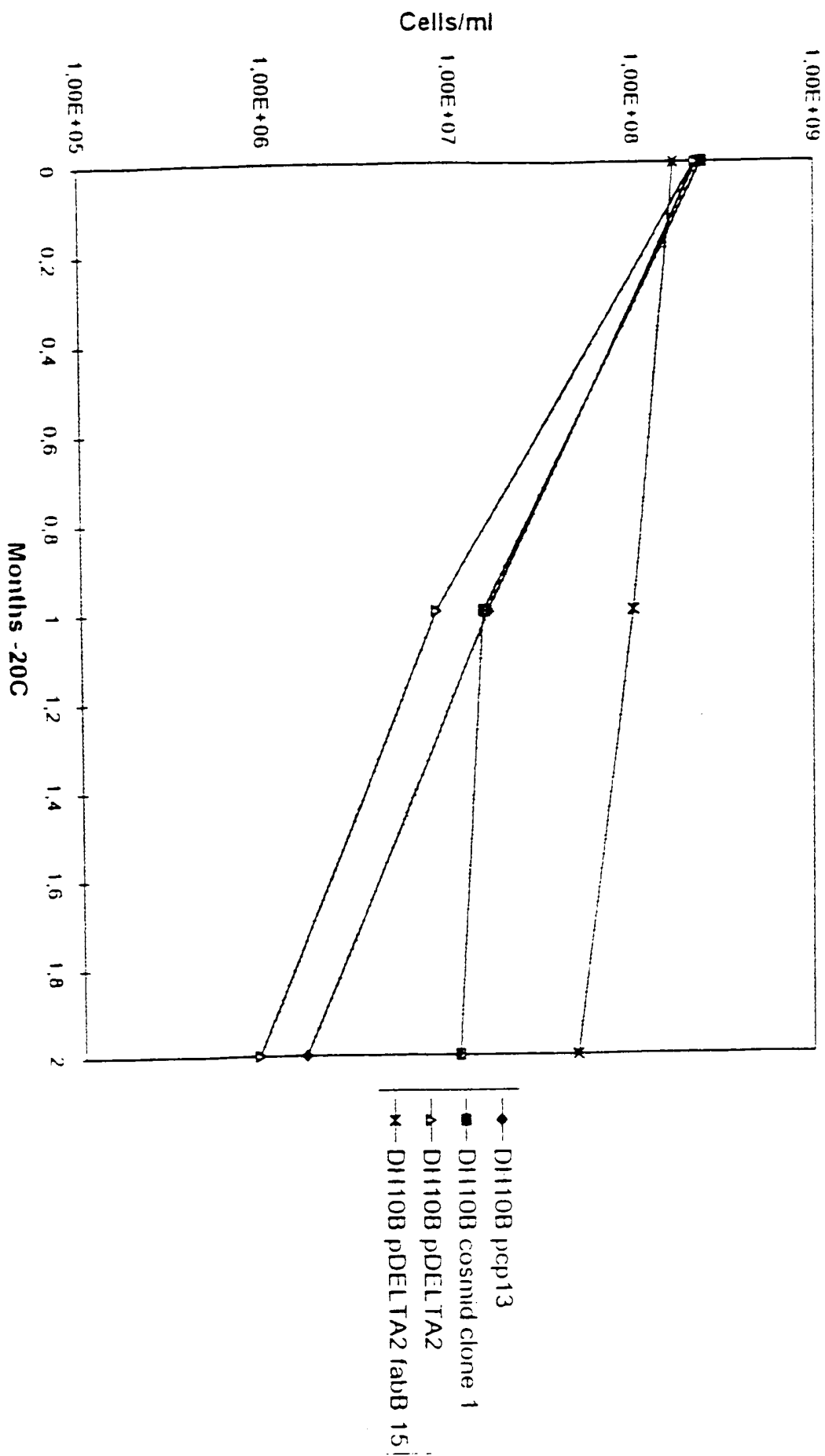
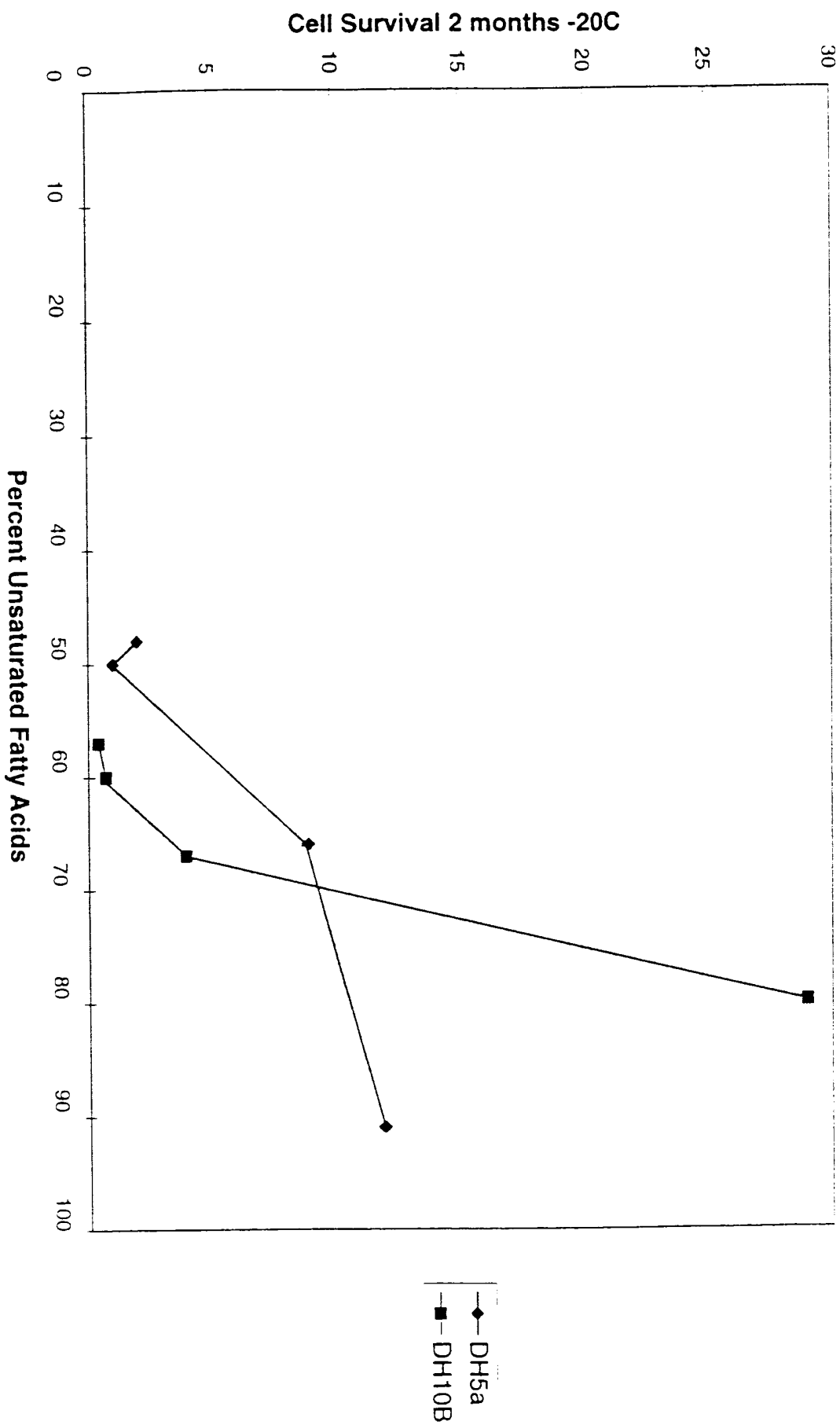


FIGURE 22

Chart43

Correlation Between Percent Unsaturated
Fatty Acids and Cell Survival at -20C



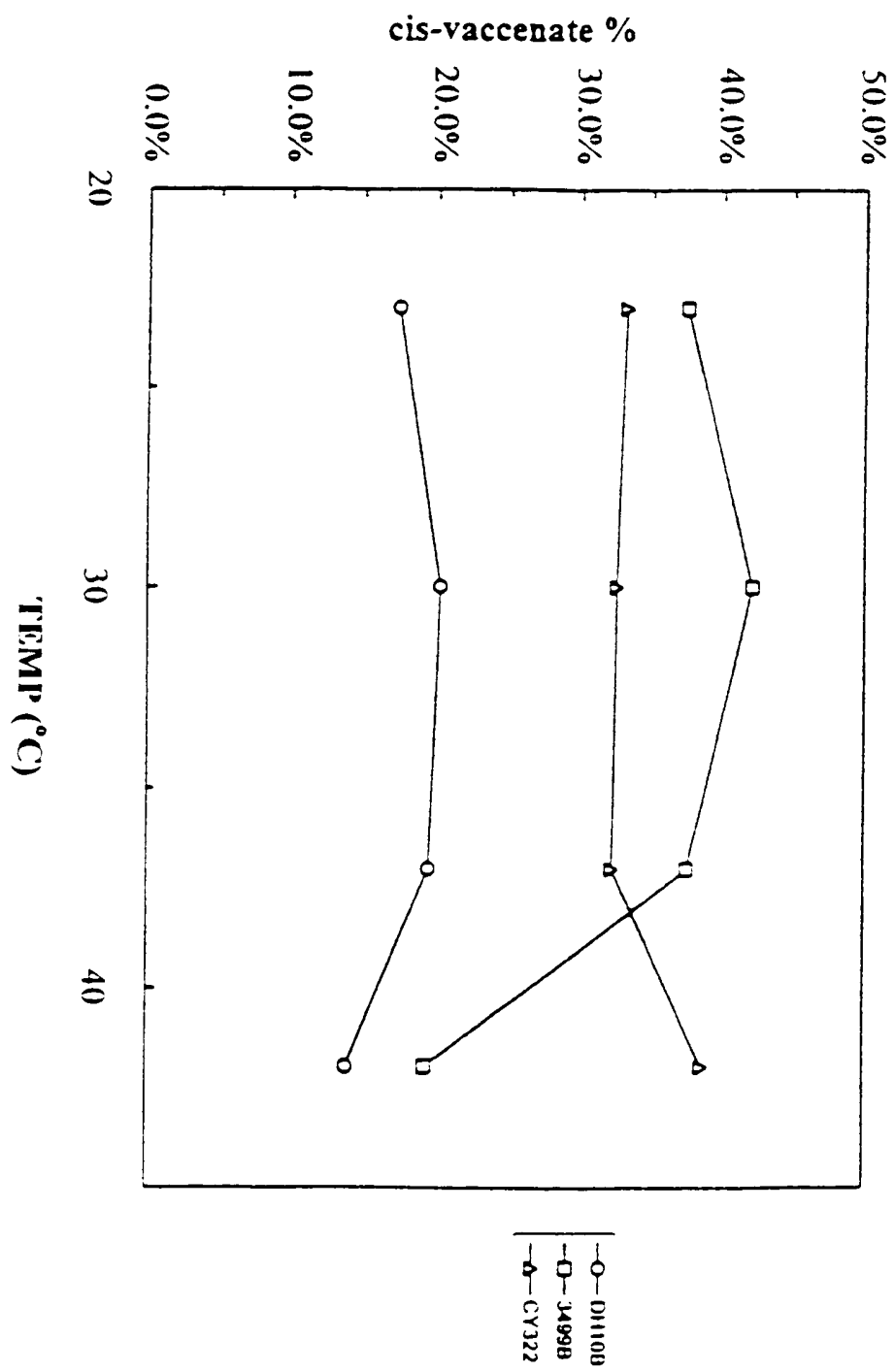
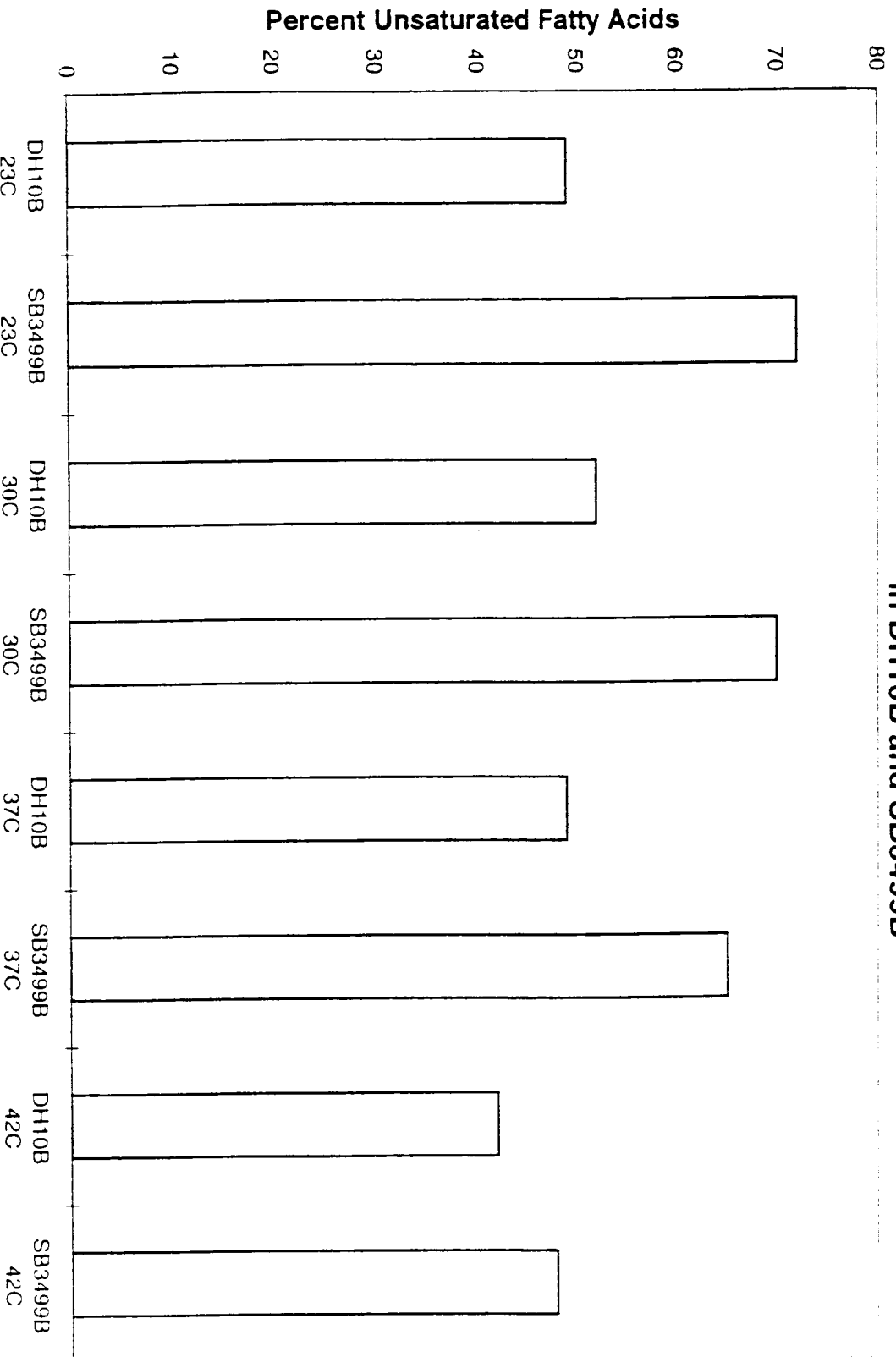


FIGURE 24

**Percent Unsaturated Fatty Acids
Effect of Growth Temperature
in DH10B and SB3499B**



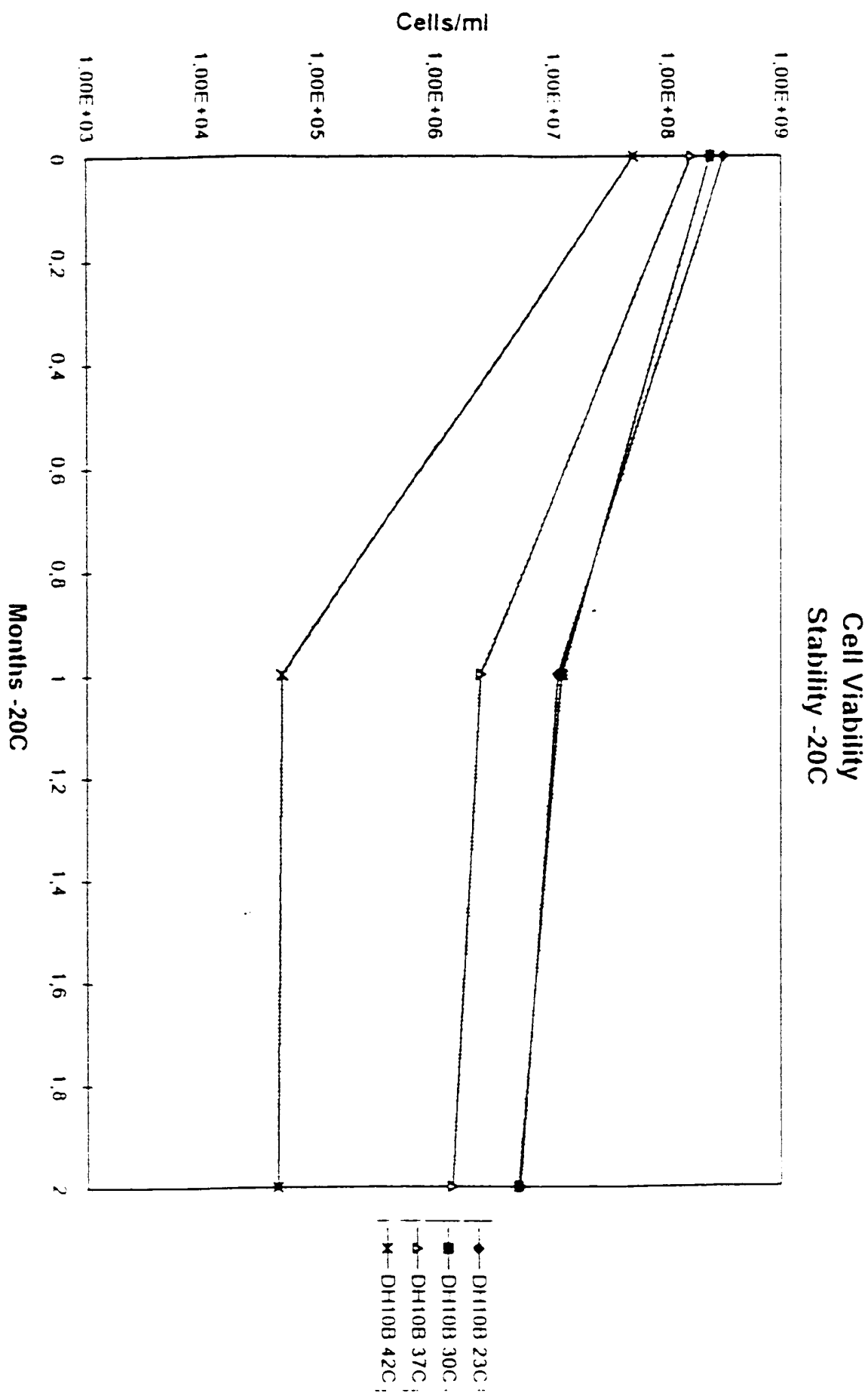
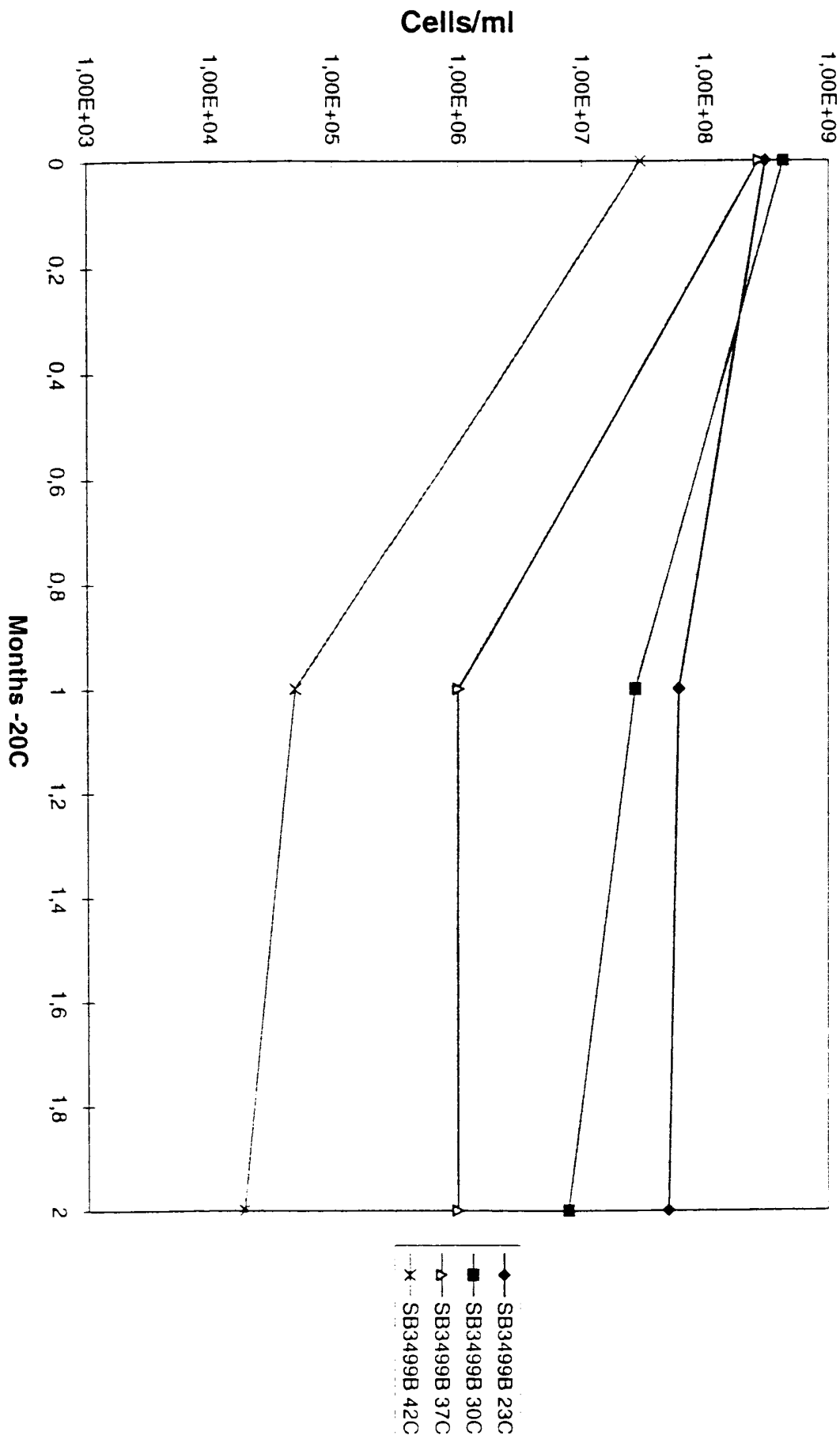


FIGURE 26

Cell Viability Stability -20C



Correlation Between Percent Unsaturated Fatty Acids and Cell Survival -20C

